



# Tides and the SWOT Mission

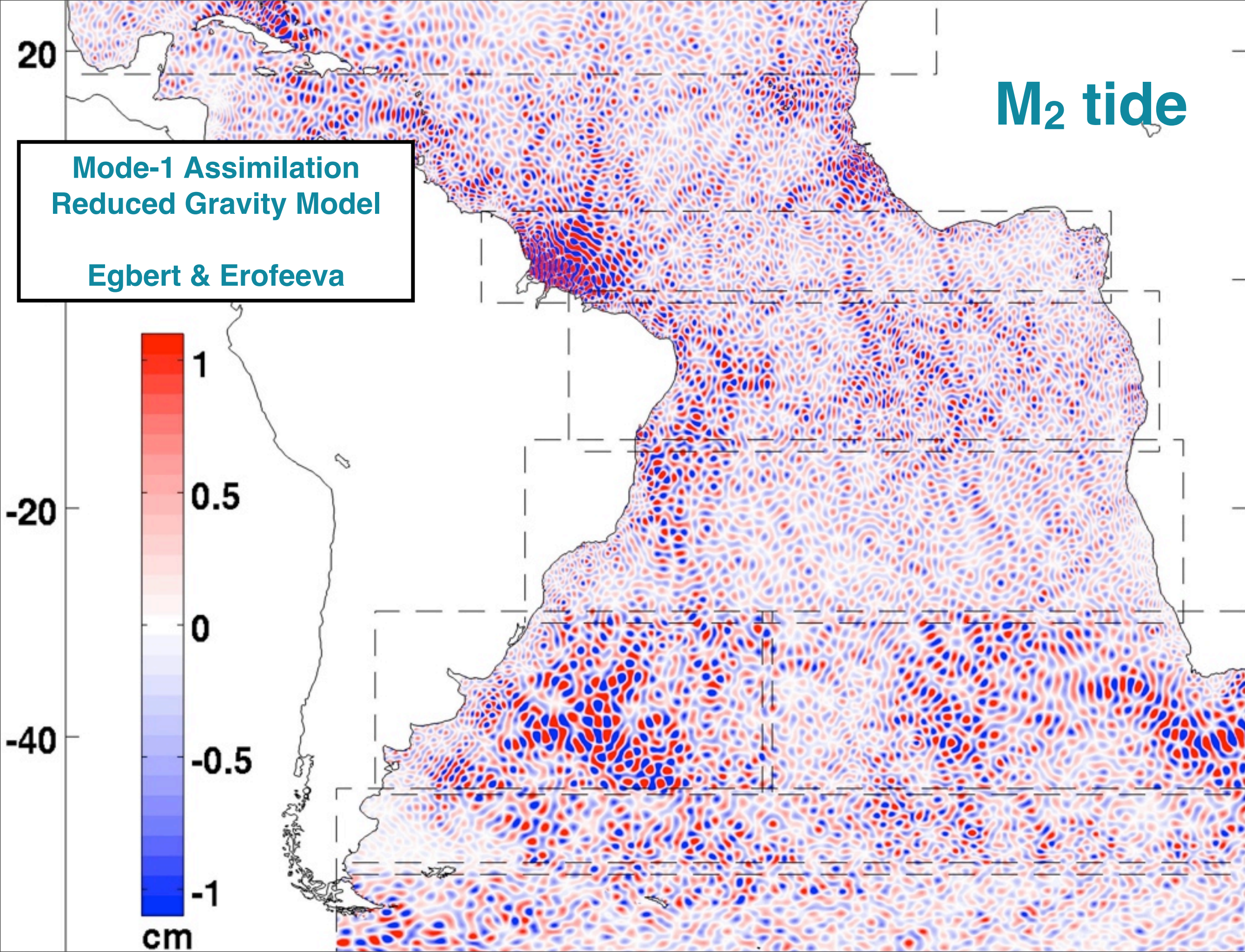
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- 1. Consideration of tides during SWOT orbit design. (Needed now!)  
Removal of tides (via corrections) and estimation of tides from SWOT.**
- 2. Tide correction algorithms to be used in SWOT data processing.  
Barotropic tide models – better coastal, polar models. Rivers?  
Baroclinic models – open research questions.**
- 3. Construction of time-mean baroclinic mode-1 model.**
- 4. Research on stationarity of low-mode internal tides.**

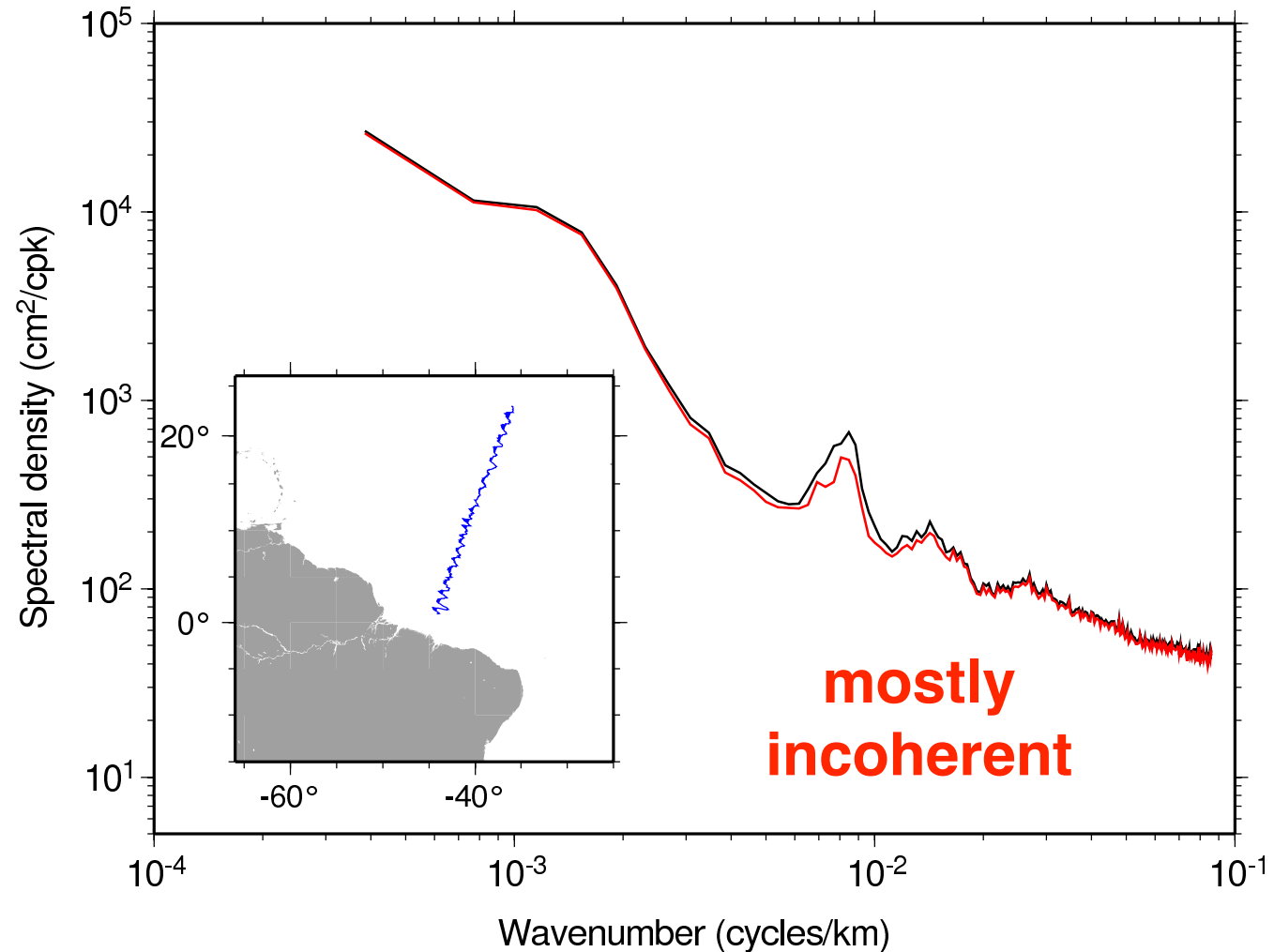
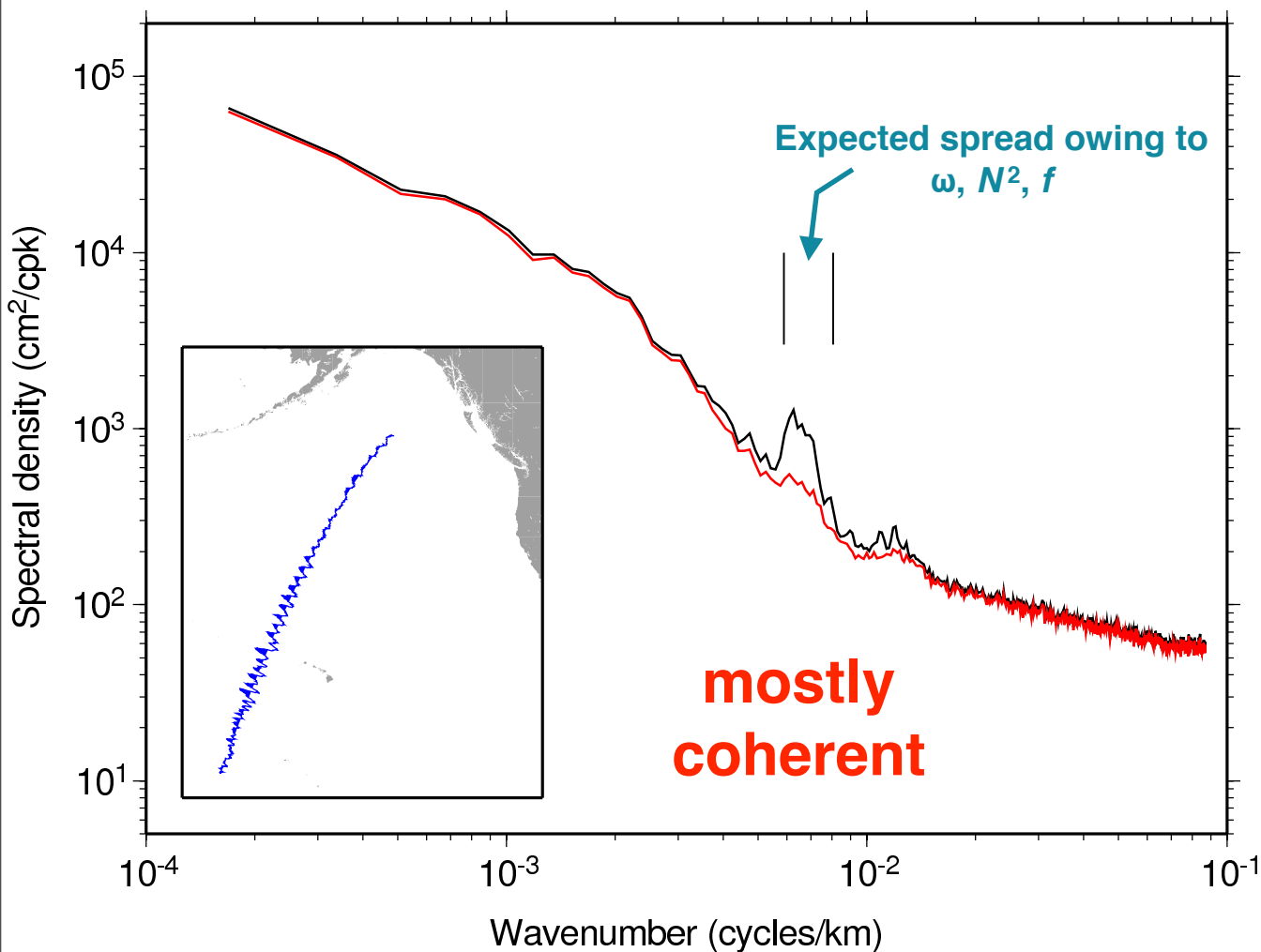






# Wavenumber Spectrum of Altimetric Sea-Surface Heights

Spectral peaks in SSH from internal tides  
(mostly semidiurnal mode-1)



**Black curves:** spectra using barotropic tide model

**Red curves:** spectra after removing estimated along-track tides (coherent over 17 y)

Is the ocean mostly like left panel, or right panel? Why?